What is Claimed:

1. A test apparatus for a projected beam-type detector comprising:

a control circuit which can be coupled to the detector;

an electrically controllable obscuration member which has at least first and second states, coupled to the control circuit, wherein the control circuit includes circuitry to test the detector by switching the obscuration member from the first state to the second state to alter a beam transmission characteristic whereupon an output, indicative of the second state, is coupled to control circuit.

2. A test apparatus as in claim 1 which includes an apparatus to alter the beam characteristic by at least one of, moving the obscuration member into a beam path of the detector, or, altering an optical transmissive characteristic of the member.

3. A test apparatus as in claim 2 which includes a beam source and a drive circuit coupled thereto wherein the drive circuit couples the same power level to the source during both normal monitoring operation and during at least one test.

4. A test apparatus as in claim 3 which includes an output port, coupled to the control circuit for transmitting indicia indicative of a test result to a remote location.

5. A projected beam detector comprising:

a beam source, and a beam sensor configured to project a radiant energy beam on a path therebetween through at least part of a region being monitored;

a controllable obscuration member, wherein the member has an obscuration state and a non-obscuration state;

a control circuit coupled to the source, the sensor, and the member and including circuits to switch the member from a non-obscuration state to an obscuration state whereby an electrical signal coupled from the sensor to the control circuit is indicative of one of a test output and an alignment check output.

6. A detector as in claim 5 wherein the obscuration member is movable between the states by a transducer.

7. A detector as in claim 5 wherein the obscuration member is electrically switchable between states thereby exhibiting an optically transmissive condition, relative to the beam, or a less optically transmissive condition, relative to the beam while at the common beam impinging location.

8. A detector as in claim 6 wherein the transducer comprises one of an electrically driven source of rotary motion and an electrically driven source of linear motion.

9. A detector as in claim 7 wherein the obscuration member comprises an element having an electrically alterable transmission characteristic wherein in response to a control electrical signal, the transmission characteristic switches from the optically transmissive condition to the less optically transmissive condition.

10. A method of operating a projected beam-type obscuration detector having a source for a beam of radiant energy and a sensor thereof, the method comprising;

projecting the beam from the source along an evaluating path through a region being monitored;

sensing the projected beam during a clear air condition subsequent to traversing the evaluating path;

automatically changing a transmissive characteristic of a part of the evaluating path thereby altering unscattered beam strength impinging on the sensor for one of conducting an operational test, and conducting an alignment test.

11. A method as in claim 10 which includes maintaining a record of test results, and repeating the steps at least intermittently.

12. A monitoring system comprising a communications medium for bidirectional communications;

at least one obscuration detector coupled to the medium wherein the detector incorporates one of a substantially fixed filter having an electrically

alterable optical parameter and a filter having a movably selectable alterable optical parameter.

13. A projected beam detector comprising:

a beam sensor and a beam source configured to project a radiant energy beam on a path therebetween through at least part of a region being monitored;

a controllable obscuration member, wherein the member has at least two obscuration states; and

a control circuit coupled to the source, the sensor, and the member and including circuits to switch the member from a first state, indicative of a normal condition, to at least a second state indicative of at least one test condition whereby an electrical signal is coupled from the sensor to the control circuit and is indicative of one of a normal output or a test output.

14. A detector as in claim 13 which includes a reflector wherein the radiant energy beam from the source is deflected to the sensor by the reflector.

15. A detector as in claim 13 wherein the test output signal is selected from a class which includes at least an alarm condition, a pre-alarm condition, a trouble condition and an alignment condition.

16. A detector as in claim 13 wherein the states are selected from a class which includes a non-obscuration state, a partial obscuration state, and a total obscuration state.

17. A detector as in claim 13 wherein the control circuit includes circuitry to switch the member between an obscuration state, indicative of at least one test condition and a different state indicative of a normal operational condition.

18. A detector as in claim 17 wherein the control circuit inhibits generation of an output signal indicative of a normal operating condition when the member is in a state indicative of a test condition.

19. A detector as in claim 15 wherein the control circuit includes circuitry to establish a fault condition if the output indicative of a test condition is not within predetermined first and second limits.

20. A detector as in claim 19 which includes a transmitter portion and a displacable receiver portion wherein the transmitter portion includes the source and circuitry to project a beam to the receiver portion.

21. A detector as in claim 13 wherein one state comprises one of uniform obscuration by the member and non-uniform obscuration by the member.

22. A detector as in claim 21 wherein a second state comprises the other of uniform obscuration by the member and non-uniform obscuration by the member.

23. A detector as in claim 20 wherein the receiver portion includes the sensor for responding to a beam from the transmitter portion.

24. A detector as in claim 19 wherein the sensor and the source are carried in a common housing.

25. A detector as in claim 24 which includes a separate reflector.